

TI-030513

Idaho Supreme Potatoes, Inc.
P.O. Box 246
Firth, Idaho 83236-0246

RECEIVED

April 28, 2003

MAY 05 2003

Department of Environmental Quality
State Air Program

Mike K. Simon
Facilities Operations Coordinator
Air Quality Division
Idaho Department of Environmental Quality
1410 North Hilton
Boise, Idaho 83706-1255

RE: Tier I Permit Application for Idaho Supreme Facility at Firth, Idaho

Dear Mr. Simon:

Idaho Supreme is submitting a Tier I permit application for the facility at Firth. Submittal of this Tier I application is a requirement under permit condition 2.14 in accordance with our Tier II permit no. 011-00013 dated June 7, 2002.

If you have any questions, please do not hesitate to call Tod Sanders at 208.346.4100 or Daniel P. Heiser of JBR Environmental Consultants, Inc. at 208.853.0883.

I certify that based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

Sincerely,



Wade Chapman
General Manager

Enclosures

RECEIVED

MAY 05 2003

Department of Environmental Quality
State Air Program

**IDAHO SUPREME POTATOES, INC.
TIER I APPLICATION**

COPY

**Submitted to:
Idaho Department of Environmental Quality
1410 NORTH HILTON
BOISE, ID 83706**

**PREPARED BY:
JBR ENVIRONMENTAL CONSULTANTS, INC.
6443 NORTH HILLSBORO PLACE
BOISE, IDAHO 83703**

May 5, 2003

Table of Contents

1.0	Introduction and Overview	4
2.0	Facility Classification	5
2.1	Facility Description	5
2.2	Facility Location	5
3.0	Process Description.....	7
3.1	Potato Processing.....	7
3.2	Boiler Operation	8
3.3	Fluidized Bed Dryer	8
3.4	Equipment List	8
3.5	Process Flow Diagram.....	9
4.0	Permit Application Forms.....	12
5.0	Regulatory Applicability Analysis.....	13
5.1	Applicable and Inapplicable IDAPA 58.01.01 Requirements.....	13
5.2	Applicable and Inapplicable Federal Air Quality Regulations – General	19
5.3	Applicable and Inapplicable New Source Performance Standards (40 CFR Part 60)....	21
5.4	Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).....	23
5.5	Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63)	24
5.6	Specific Applicable and Inapplicable Requirement Discussion.....	26
6.0	Emission Calculations.....	28
7.0	Excess Emissions Documentation	29
8.0	Ambient Air Impact Analysis	30
9.0	Compliance Certification Plan.....	62
9.1	Objective.....	62
9.2	Compliance Demonstration with Facility Wide Requirements.....	62
9.2.1	Fugitive Particulate Matter - IDAPA 58.01.01.650-651	62
9.2.2	Control of Odors - IDAPA 58.01.01.775-776	63
9.2.3	Visible Emissions	63
9.2.4	Excess Emissions.....	64
9.2.5	Open Burning	64
9.3	Compliance Demonstration with Specific Emission Units	64
9.3.1	Boiler No. 4	64
9.3.2	Boiler No. 3	66
9.3.3	Dryers and Other Natural Gas Equipment.....	67
9.3.4	Process Dehydration Lines	67
9.4	Compliance Demonstration with Other Federal Requirements.....	67
9.4.1	Compliance Assurance Monitoring (CAM)	67
9.4.2	Renovation/Demolition – 40 CFR 61, Subpart M (Asbestos).....	67
9.4.3	Chemical Accident Prevention Provisions – 40 CFR 68.....	67
9.4.4	Maximum Achievable Control Technology (MACT).....	68
9.5	New Applicable Requirements.....	68
9.6	Certification	69

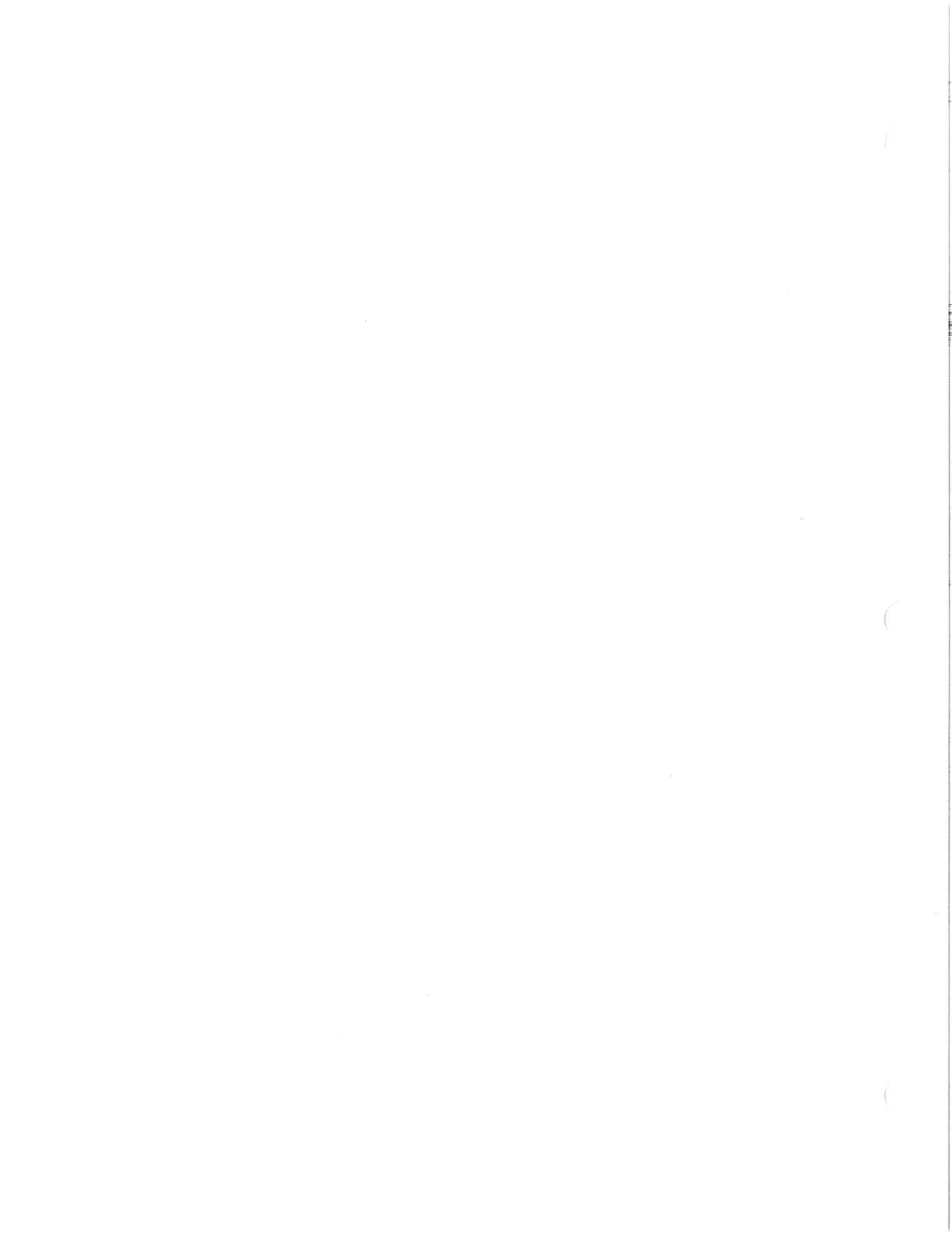
10.0	Insignificant Activities	70
11.0	Alternative Operating Scenario/Trading Scenarios/Permit Shield.....	73
11.1	Alternative Operating Scenario/Trading Scenarios.....	73
11.2	Permit Shield.....	73
	Appendix A – Completeness Checklist	74
	Appendix B – Performance Test and Monitoring Protocol	85
1.0	INTRODUCTION	88
2.0	EMISSION SOURCE INFORMATION.....	89
2.1	Facility Description	89
2.2	Emission Unit Information	89
2.3	Emission Limitations for Performance Testing.....	89
3.0	SOURCE TEST PROGRAM DESCRIPTION	90
3.1	Performance Testing Consultant and CEMS/COMS Manufacturers	90
3.2	Test Dates	90
3.3	Report Date.....	90
3.4	Pollutants to be Tested.....	91
3.5	Testing Methodology, Procedures, and Performance Specifications	91
3.5.1	Opacity.....	91
3.5.2	NOx (Boiler #4).....	94
3.6	Safety Considerations and Working Conditions	100
3.7	Production Data	100
4.0	Initial Performance Test Report Format	101

List of Tables

Table 5-1 Applicable and Inapplicable IDAPA 58.01.01 Requirements.....	13
Table 5-2 Applicable and Inapplicable 40 CFR Regulations	19
Table 5-3 Applicable and Non-Applicable New Source Performance Standards (40 CFR Part 60)	21
Table 5-4 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61).....	23
Table 5-5 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63).....	24
Table 5-6 Specific Applicable and Inapplicable Requirements.....	27
Table 10-1 Insignificant Emissions	70

List of Figures

Figure 2-1 Idaho Supreme Facility Location	6
Figure 3-1 Potato Flake Processing	10
Figure 3-2 Potato Slice Processing	11
Figure 8-1 Project Site Location Map.....	59
Figure 8-2 Site Map	60

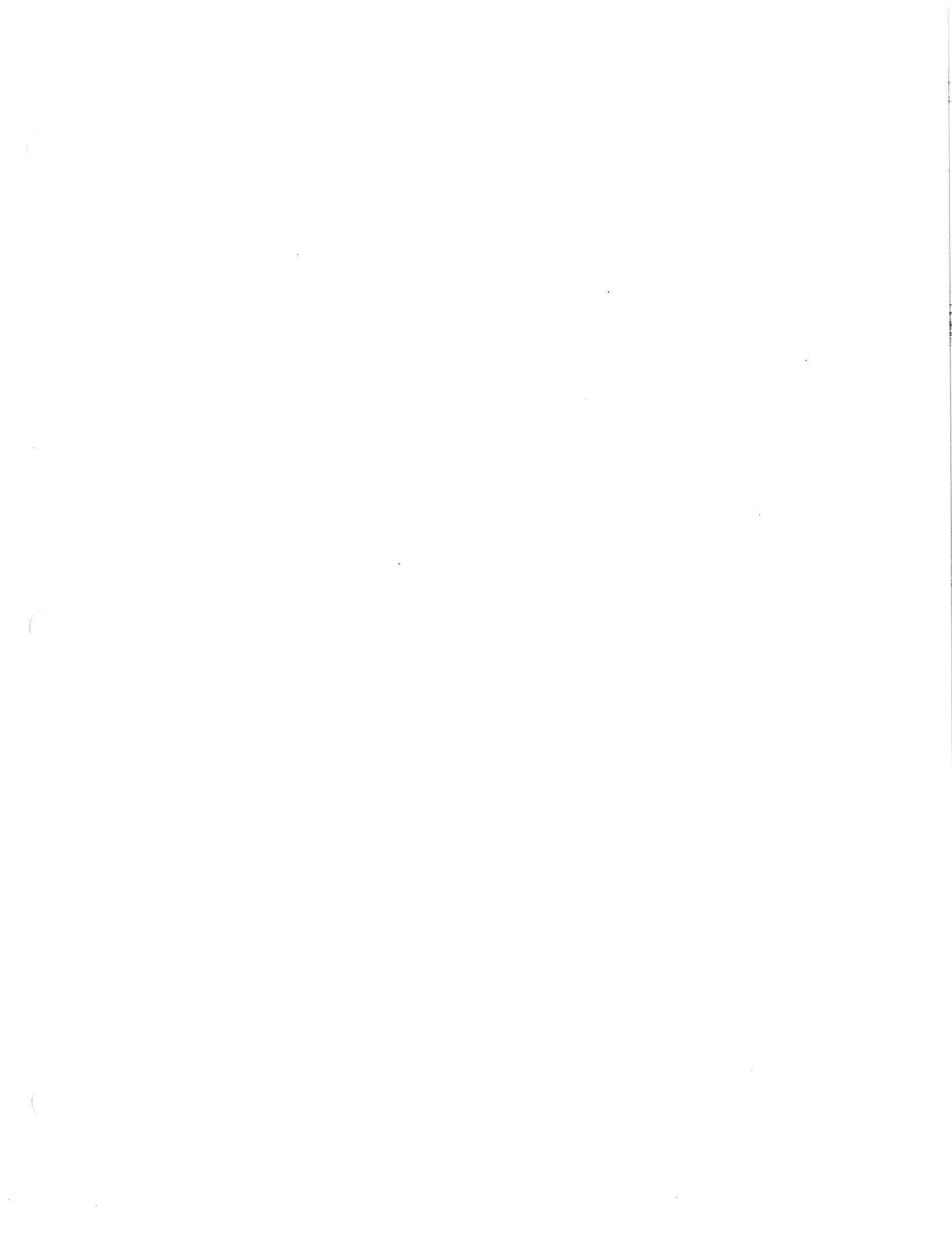


1.0 Introduction and Overview

Idaho Supreme Potatoes Inc. (Idaho Supreme) is applying for a Title V Operating Permit (OP). Idaho Supreme Potatoes Inc. is currently operating under Tier II Operating Permit # 011-00013, which expires June 7, 2007. In the Tier II OP Boiler # 3 and Boiler # 4 were modified to have the capacity to burn residual fuel (#s 4, 5, or 6) along with maintaining the flexibility to continue burning natural gas, propane and distillate fuel oil # 2. Only very low sulfur fuel (< 0.50 % weight) will be combusted with a nitrogen content for residual fuel of 1,500 ppm by weight. Idaho Supreme also increased the hours of operation of the fluidized bed dryer from that contained in its 2001 exemption of 3,000 hours a year to 8,760 hours a year. A 16,000 gal and two 30,000 gal tanks were included for storing fuel for the boilers and fluidized bed dryer. Boiler # 3 and space heaters north, south, east and miscellaneous are emission sources that have hours of operation limited at 3,185 hr/year and 6,048 hr/yr respectively.

The following permits have been issued for Idaho Supreme:

- Tier II Operating Permit No. 011-00013, issued December 23, 1998.
- Tier II Operating Permit No. 011-00013, issued June 7, 2002.



2.0 Facility Classification

The Idaho Supreme Potatoes, Inc. facility is not a designated facility, as defined by IDAPA 58.01.01.006.27. The modifications in the current Tier II OP to operate on residual fuel make Idaho Supreme a major facility for SO_x and NO_x because the potential to emit (PTE) is greater than 100 tons a year. The facility is not a Prevention of Significant Deterioration (PSD) facility as no criteria pollutant exceeds 250 ton/yr.

2.1 Facility Description

Idaho Supreme Potatoes Inc. is a potato processing company. Their process primarily involves potato dehydration to make potato flakes. This process includes dryers, flakers and silos which are also sources of emissions. Description of the process is given in Section 3 below.

2.2 Facility Location

The Idaho Supreme facility is located in Bingham County, Firth, Idaho, Corner of Highway 91 and 800 Goshen. The exact location in relation to the surrounding area is shown in Figure 2-1. Site plans are shown in the modeling report included in section 8.

HAR-13-22484-201-124 010 IDAHO SUPREME POTATOES

3454164

P-01

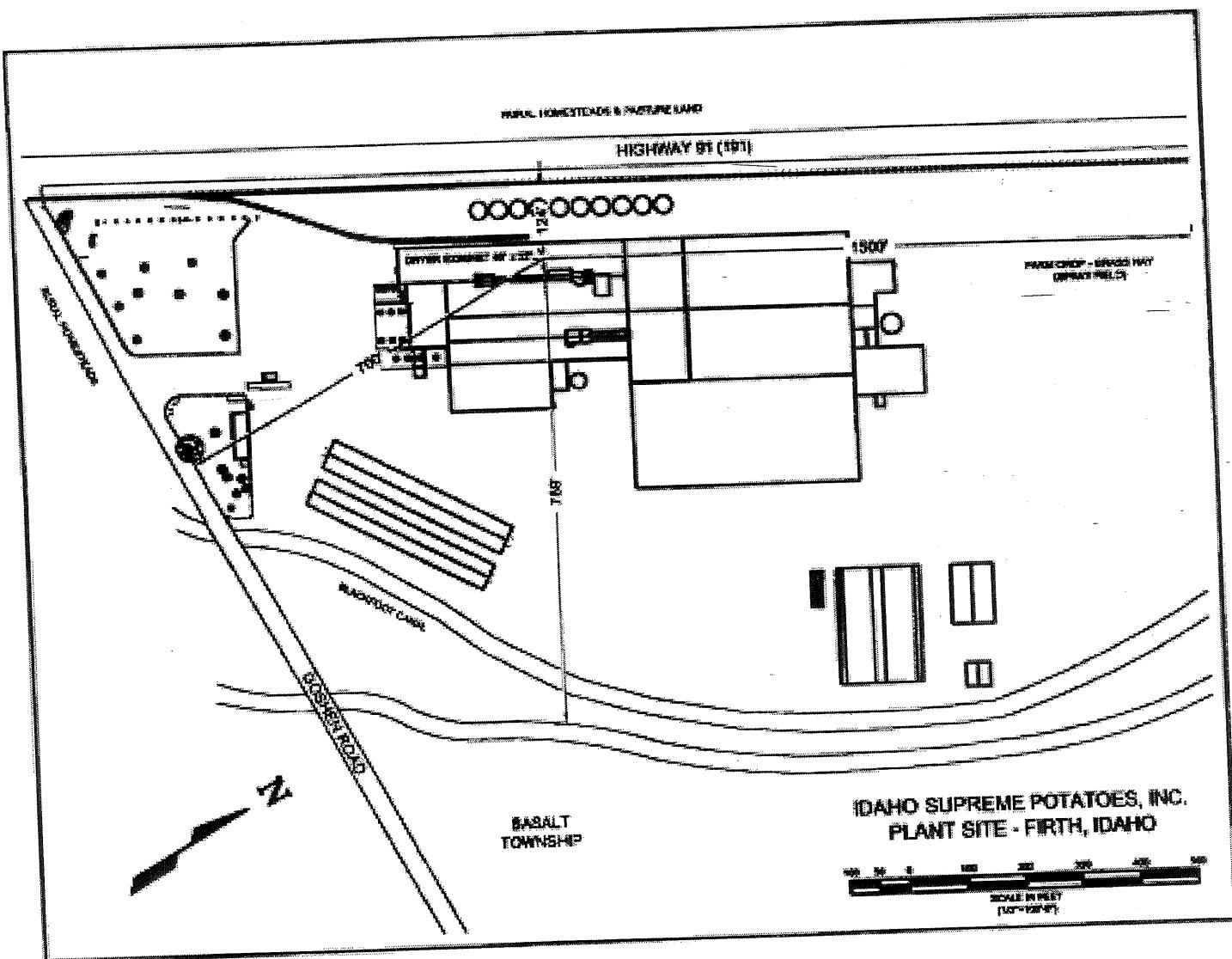


Figure 2-1 Idaho Supreme Facility Location

3.0 Process Description

3.1 Potato Processing

Initially potatoes are received at the plant on trucks and are unloaded across pilers into temporary storage bins. They are taken from the bins for the process using cold water to transport and wash the potatoes. This removes silt and rocks from potatoes. The potatoes are conveyed to a tare removal table where rot, sticks and other debris are removed.

The potatoes enter a steam peeler, where they are exposed to steam for a brief period of time. This loosens the peeling prior to the washing stage. The steam is exhausted and quenched in a water bath. Excess steam may exhaust out the roof but most, if not all, of the steam is quenched by cool water and sent to land application. The peeling is fully removed by dry and wet scrubbing which is done by revolving brushes and can include water sprays. Waste products from this process are used for cattle feed.

The peeled potatoes travel across a trim table where workers cut off, remove and discard defective parts of the potato and peel that has not been removed. The potatoes are held in a surge bin and released at a metered rate for proper slicing. The product is then pumped to precookers or blanchers. The pre-cooker blanches the potatoes in hot water.

This operation gelatinizes the starch. Potatoes are then cooled to retrograde the starch gelatinization for better texture and taste. The potatoes are water transported into cookers where they are exposed to atmospheric steam to fully cook the potato. The potatoes are riced, forced through slots and broken into smaller pieces like mash, and added to the dehydration rolls.

The mashed/riced potatoes are spread across the face of the drum dryers with five applicator rolls. Only whole cells stick to the drum. The steam drum dryer rotates and drives the moisture from the potato cells. The main dehydrated moisture is removed from the drum dryer stack. Excess moisture is removed by a steam snifter fan, which keeps dehydrated moisture from rehydrating final product.

The dried potato sheet is cut off the drum and broken into smaller pieces. Good flake goes to mills where it is cut into desired particle size and density (as required by our customers) and air transported to product separation baghouses. The flake is then bagged, placed into large totes for storage and transport, reblended for texture and quality, or sent to silos for storage.

The slice line dehydrates potato slices into slices for instant foods, like Au Gratin or Scallops. The process is identical up to the blanching/cooking stage. The slices are then blown down or up through to dehydrate the slices to a shelf stable product. The potato slices are piled thin in A stage, thicker in B stage and thickest in C stage. Slices are then sorted and shipped in bags or totes. Slices that are not dehydrated to shelf stable product can be finished or dried in the secondary dryer, or used as byproduct for dog food.

Potato flake is layered into the single unit fluidized bed dryer (FBD) that was installed in the

existing facility. Potato flakes, with moisture content of approximately 7%, are metered from onsite process and storage units into a mixing unit. In the same mixer, liquid additives are applied through pressure sprays at room temperature ahead of the dryer body.

The treated moist flake now has moisture content of approximately 30%. The flake is then metered into the FBD, where it passes through three compartments. The first two are heated, and the third compartment is a cooling stage. The resulting product is collected and repacked according to customer specifications. Two Maxon burners provide the required heat for final dehydration. These operate at a maximum rate of 3.5 million BTU per hour. Product drying rate sets the actual heat input demand.

3.2 Boiler Operation

Boiler #4 can operate on residual fuel (#s 4, 5 or 6), distillate fuel, natural gas, or propane. Only very low sulfur residual or distillate fuels (< 0.50 % weight) are combusted with a nitrogen content for residual fuel of 1,500 ppm by weight. A 16,000 gallon portable tank and two 30,000 gallon storage tanks are included for storing the fuel oils.

Boiler #4 has new nozzles installed on the burner. The rated heat input capacity of the boiler is 140 million BTU/hr if natural gas is used as the fuel. The rated heat input capacity is 97.5 million BTU per hour (average) when #4, #5 or #6 residual fuel is burned. The boiler has a low NOx burner (CSI NOx Mizer) and has a continuous emissions opacity monitor (COMS) and a NOx continuous emissions monitoring system (CEMS) – see Performance Test and Monitoring Protocol in Appendix B.

Boiler #3 is permitted to be fired on natural gas, propane, diesel or residual fuel (#s 4, 5 or 6). At this time Idaho Supreme is running it on natural gas or propane only. The rated heat input capacity of the boiler is 43 million BTU/hr if natural gas is used as the fuel. The boiler has a low NOx burner (CSI NOx Mizer).

3.3 Fluidized Bed Dryer

This process line received an exemption from IDEQ in early calendar year 2001 for 3,000 hours/year operation, and is now permitted for 8,760 hours of operation. This is a single unit fluidized bed dryer (FBD).

The maximum input to the process is 2,000 lb/hr. This amounts to approximately 1,300 pounds of potato flake and 700 pounds of additives (additives are approximately 70% water by weight).

3.4 Equipment List

The equipment list is:

1. Boiler #4
2. Boiler #3
3. BD21X3 Fluidized Bed Dryer

4. Two Maxon 435 Oven Pak II natural gas, or propane, burners (each of the two burners is rated at 3.5 million BTU per hour)
5. Mixer vessel
6. Miscellaneous tanks and pumps for liquid ingredients
7. Enclosed conveyors for product transportation
8. Bulk bagging station for product collection
9. Tanks
 - One portable 16,000 gallon tank, also known as a day tank, with a heated line and a specialized pump.
 - Two tanks with a capacity of 30,000 gallons are installed for fuel oil storage.
10. Silos

3.5 Process Flow Diagram

Process flow diagrams are shown in Figures 3-1 to 3-2:

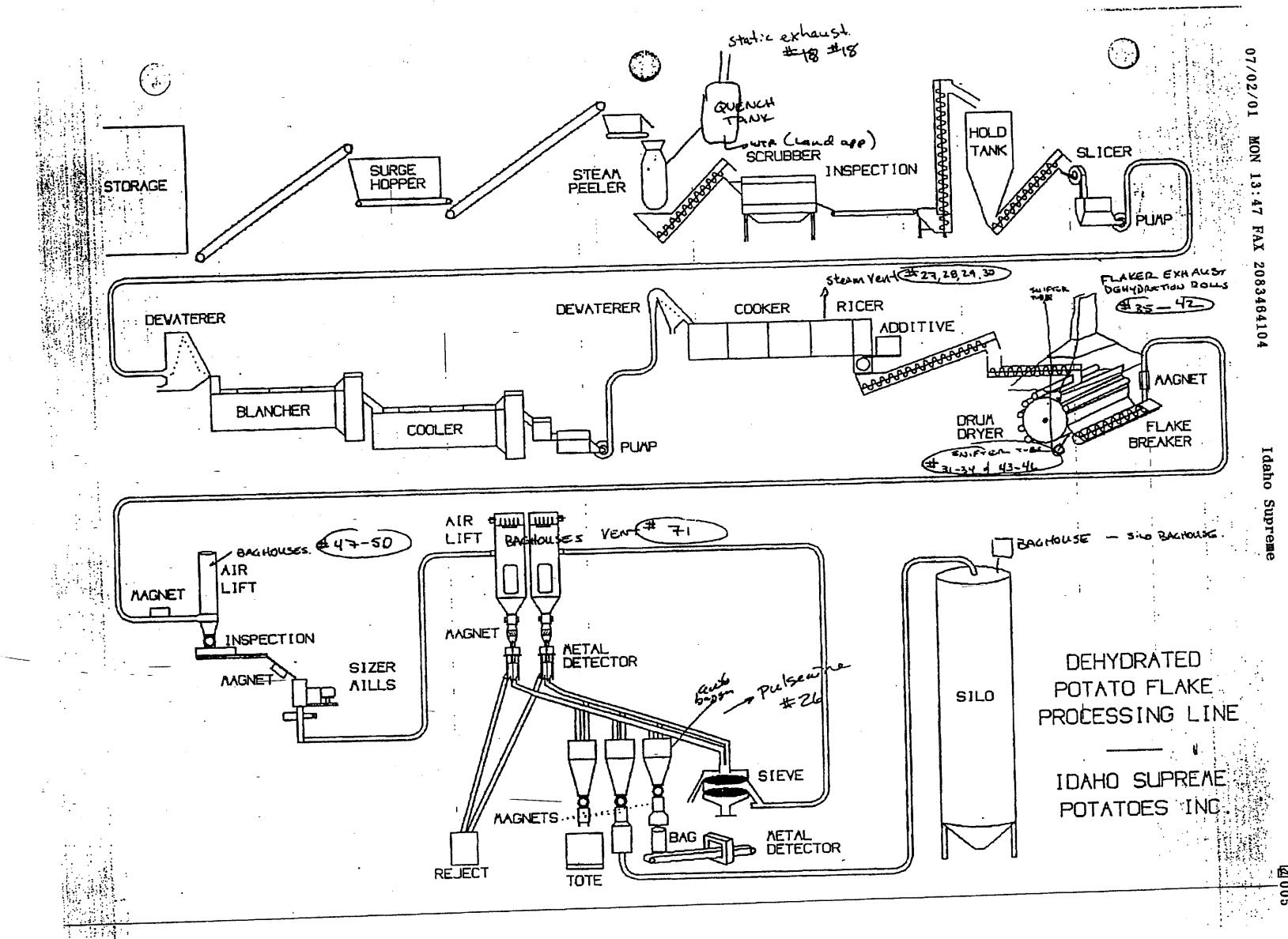


Figure 3-1 Potato Flake Processing

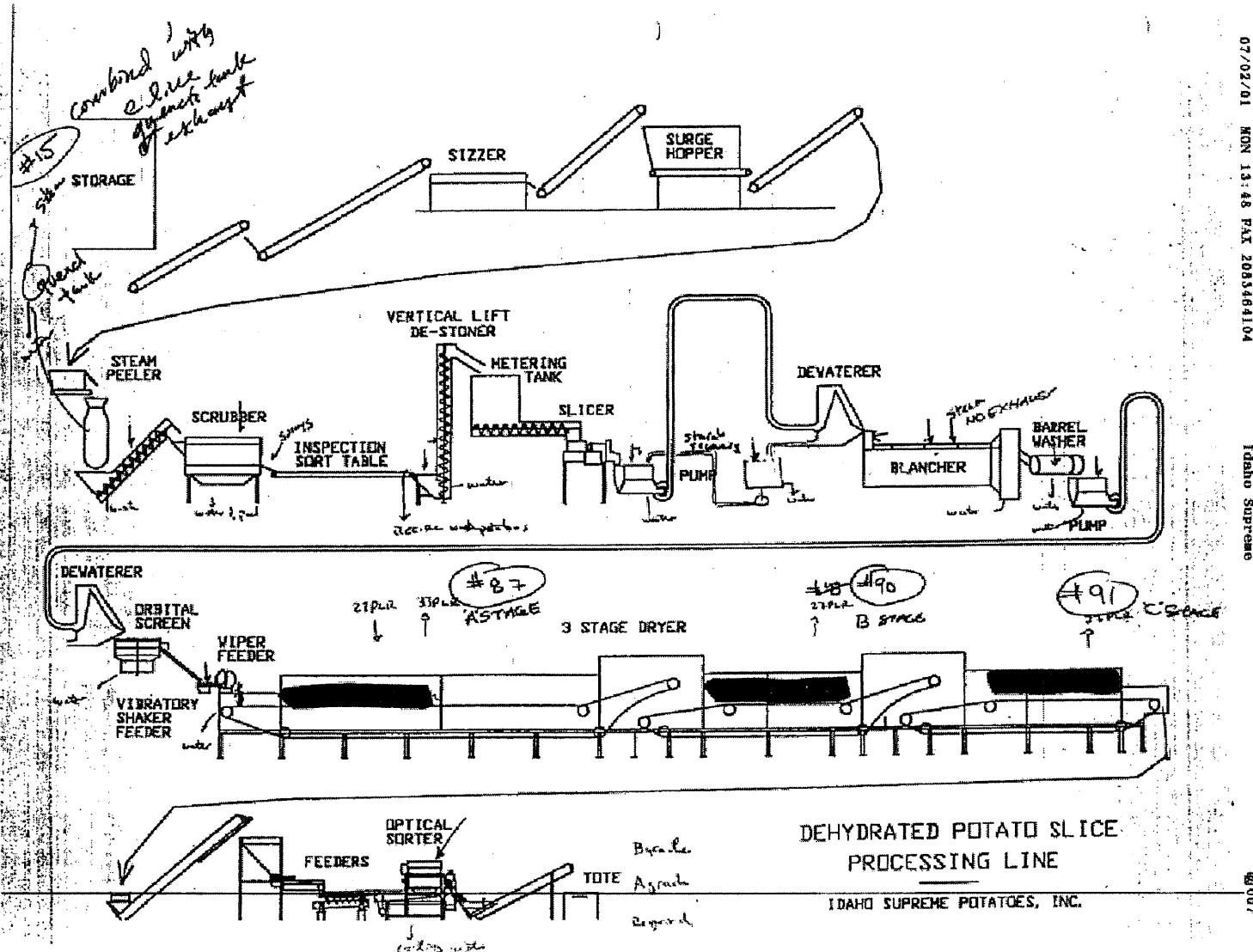


Figure 3-2 Potato Slice Processing

4.0 Permit Application Forms

SECTION 1: GENERAL INFORMATION

COMPANY & DIVISION NAME	Idaho Supreme Potatoes, Inc.		
STREET ADDRESS OR P.O. BOX	P.O. 246		
CITY	Firth		
STATE	ID	ZIP	83236-0246
PERSON TO CONTACT	Tod Sanders		
TITLE	Power Systems Manager		
PHONE NUMBER	208-348-4100		
EXACT PLANT LOCATION	Corner of Highway 91 and 800 North Goshen Highway		
GENERAL NATURE OF BUSINESS	Dehydrated Potato Processing Plant		
NUMBER OF FULL-TIME EMPLOYEES	350		
PROPERTY AREA (ACRES)	92	REASON FOR APPLICATION	<input type="checkbox"/> 2
		(1) Change of Owner or Location (2) Tier I Permit to Operate (3) Tier II Permit to Operate	
DISTANCE TO NEAREST STATE BORDER (MILES)	65	SECONDARY SIC	<input type="checkbox"/> None
PRIMARY SIC	2034	ELEVATION (FT)	<input type="checkbox"/> 4462
PLANT LOCATION COUNTY	Bingham	UTM (X) COORDINATE (KM)	<input type="checkbox"/> 4795.9
UTM ZONE	12		
UTM (Y) COORDINATE (KM)	404.8		
NAME OF FACILITIES List all facilities with the State that are under your control or under common control and have emissions to the air. If none, so state.			
<input type="checkbox"/> None <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
<input type="checkbox"/> None <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
<input type="checkbox"/> Wade Chapman <input type="checkbox"/> General Manager			
OWNER OR RESPONSIBLE OFFICIAL			
TITLE OF RESPONSIBLE OFFICIAL			

Based on information and belief formed after reasonable inquiry
I certify the statements and information in this document are accurate and complete.

SIGNATURE OF OWNER OR RESPONSIBLE OFFICIAL

DATE

4-28-03

SECTION 2: FUEL BURNING EQUIPMENT

Boiler # 4

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Boiler #4		
STACK DESCRIPTION	Height 50 feet; Stack diameter 3 feet; Exit gas volume 32,000 acfm, Exit gas temperature 375 °F.		
BUILDING DESCRIPTION			
MANUFACTURER	Bigelow	DATE INSTALLED	na
MODEL	Coen 200 Series FYR W/CSI Nox Mixer Size 34 Burner	DATE LAST MODIFIED	na

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Primary	Secondary	Secondary 2	Secondary 3	BURNER TYPE	9, 11
MILLION BTU/HR	97.5	140	91	% USED FOR PROCESS	100
1000 LBS STEAM/HR				% USED FOR SPACE HEAT	0
KILOWATTS					
HORSEPOWER					

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*		
FUEL CODE (SEE NOTE)	3, 4	na**	1	2	14	na
PERCENT SULFUR	<0.5	%	0.003	0.5	0.000011	%
PERCENT ASH	0.05	%	0	0.01	0	%
PERCENT NITROGEN	0.15	%	1.8	0.006	0	%
PERCENT CARBON	88.6	%	73.6	87.3	81.8	%
PERCENT HYDROGEN	10.4	%	24.3	12.6	18.2	%
PERCENT MOISTURE	0.05	%	0	0.1	0	%
HEAT CONTENT (BTU/UNIT)	150,000	BTU/gal	1027 BTU/scf	140,000 BTU/ga	91,000 BTU/ga	na
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	650	gal/hr	136,319 scf/hr	650 gal/hr	1,050 gal/hr	na
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	4.68	MMgal/yr	981 MMscf/yr	5.69 MMgal/yr	9.2 MMgal/yr	na

*Weight % **Not Applicable

NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);

07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY Low NO_x)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;

10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL

14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

Boiler # 4

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER		OPERATING SCHEDULE	
DEC-FEB	25	HOURS/DAY	24
MAR-MAY	25	DAY/WEEK	7
JUN-AUG	25	WEEKS/YEAR	52
SEP-NOV	25		

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	PRIMARY	Y	SECONDARY
TYPE CODE (FROM APP. A)	Low Nox Burners		
MANUFACTURER	na		
MODEL NUMBER	na		
PRESSURE DROP (IN. OF WATER)	na		
WET SCRUBBER FLOW (GPM)	na		
BAGHOUSE AIR/CLOTH RATIO (FPM)	na		

VENTILATION AND BUILDING/AREA DATA

STACK DATA			
ENCLOSED (Y/N)?	Y	GROUND ELEVATION (FT)	4,462
HOOD TYPE (FROM APP. B)		UTM X COORDINATE (KM)	404.8
MINIMUM FLOW (ACFM)		UTM Y COORDINATE (KM)	4,795.90
PERCENT CAPTURE EFFICIENCY		STACK TYPE (SEE NOTE BELOW)	
BUILDING HEIGHT (FT)		STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
BUILDING/AREA LENGTH (FT)	29.9	STACK EXIT DIAMETER (FT)	3
BUILDING/AREA WIDTH (FT)	100	STACK EXIT GAS FLOWRATE (ACFM)	32,000
		STACK EXIT TEMPERATURE (DEG. F)	375

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS		
					(LBS/HR)	(TONS/YR)	REFERENCE
PM		0.0115 lb/gal	0	7.48	na***	na	Tier II OP 011-00013
PM-10		0.0115 lb/gal	0	7.48	na	na	Tier II OP 011-00013
SO2		0.157 lb/gal	0	51	na	na	Tier II OP 011-00013
CO		0.000084 lb/scf	0	11.5	na	na	Tier II OP 011-00013
NOX		0.047 lb/gal	0	30.6	na	na	Tier II OP 011-00013
VOC		0.0000055 lb/scf	0	0.8	na	na	Tier II OP 011-00013
LEAD**		0.00000151 lb/gal	0	9.8E-04	na	na	Tier II OP 011-00013

* EMISSION FACTORS FROM AP-42.

Lead EF is for # 6 Residual Oil *Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER		OPERATING SCHEDULE	
DEC-FEB	25	HOURS/DAY	
MAR-MAY	25	DAY/WEEK	
JUN-AUG	25	WEEKS/YEAR	
SEP-NOV	25	HOURS/YEAR	3,185

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	None	PRIMARY	SECONDARY
TYPE CODE (FROM APP. A)			
MANUFACTURER			
MODEL NUMBER			
PRESSURE DROP (IN. OF WATER)			
WET SCRUBBER FLOW (GPM)			
BAGHOUSE AIRCLOTH RATIO (FPM)			

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	Y	GROUND ELEVATION (FT)	4,462
HOOD TYPE (FROM APP. B)		UTM X COORDINATE (KM)	404.8
MINIMUM FLOW (ACFM)		UTM Y COORDINATE (KM)	4,795.90
PERCENT CAPTURE EFFICIENCY		STACK TYPE (SEE NOTE BELOW)	
BUILDING HEIGHT (FT)		STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
BUILDING/AREA LENGTH (FT)	29.9	STACK EXIT DIAMETER (FT)	2.89
BUILDING/AREA WIDTH (FT)	100	STACK EXIT GAS FLOWRATE (ACFM)	13,000
		STACK EXIT TEMPERATURE (DEG. F)	550

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS		
					(LBS/HR)	(TONS/YR)	REFERENCE
PM		0.0115 lb/gal	0	2.3	na***	na	Tier II OP 011-00013
PM-10		0.0115 lb/gal	0	2.3	2.3	3.7	Tier II OP 011-00013
SO2		0.157 lb/gal\$****	0	15.7	16	25	Tier II OP 011-00013
CO		0.000084 lb/scf	0	3.5	na	na	Tier II OP 011-00013
NOX		0.047 lb/gal	0	9.4	na	na	Tier II OP 011-00013
VOC		0.0000055 lb/scf	0	0.23	na	na	Tier II OP 011-00013
LEAD**		0.00000151 lb/gal	0	3.0E-04	na	na	Tier II OP 011-00013

* EMISSION FACTORS FROM AP-42.

**Lead EF is for # 6 Residual Oil

***Not Applicable

****% Sulfur in Fuel = 0.5%

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

Boiler # 3

DEQ USE ONLY

DEQ PLANT ID CO
DEQ BUILDING CODE
DEQ SEGMENT CODE

DEQ PROCESS CODE
PRIMARY SCC

DEQ STACK ID CODE
SECONDARY SCC

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Boiler #3				
STACK DESCRIPTION	Height 36 feet; Stack diameter 2.89 feet: Exit gas volume 13,000 acfm, Exit gas temperature 550 °F.				
BUILDING DESCRIPTION					
MANUFACTURER	Cleaver Brooks	MODEL	WT200X-BR3	DATE INSTALLED	
				DATE LAST MODIFIED	

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

	Primary	Secondary 1	Secondary 2	Secondary 3
MILLION BTU/HR	43	30	28	29.1
1000 LBS STEAM/HR				
KILOWATTS				
HORSEPOWER				

BURNER TYPE	9, 11
% USED FOR PROCESS	100
% USED FOR SPACE HEAT	0

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL			UNITS*
			3, 4	2	14	
FUEL CODE (SEE NOTE)	1	na**				na
PERCENT SULFUR	0.003	%	<0.5	0.5	0.000011	%
PERCENT ASH	0	%	0.05	0.01	0	%
PERCENT NITROGEN	1.8	%	0.15	0.006	0	%
PERCENT CARBON	73.36	%	88.6	87.3	81.8	%
PERCENT HYDROGEN	24.3	%	10.4	12.6	18.2	%
PERCENT MOISTURE	0	%	0.05	0.1	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	150,000 BTU/gal	140,000 BTU/gal	91,000 BTU/gal	na
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	41,899	scf/hr	200 gal/hr	200 gal/hr	320 gal/hr	na
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	141	MMscf/yr	637 Mgal/yr	637 Mgal/yr	1.02 MMgal/yr	na

*Weight % **Not Applicable
 NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);

07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY): Low Nox Burner

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;

10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL

14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

Fluidized

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	25
MAR-MAY	25
JUN-AUG	25
SEP-NOV	25

OPERATING SCHEDULE

HOURS/DAY	24
DAY/WEEK	7
WEEKS/YEAR	52
HOURS/YEAR	8,760

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE

None

PRIMARY

SECONDARY

TYPE CODE (FROM APP. A)

MANUFACTURER

MODEL NUMBER

PRESSURE DROP (IN. OF WATER)

WET SCRUBBER FLOW (GPM)

BAGHOUSE AIR/CLOTH RATIO (FPM)

VENTILATION AND BUILDING/AREA DATA

STACK DATA

ENCLOSED (Y/N)?	Y
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	64
BUILDING/AREA LENGTH (FT)	53.8
BUILDING/AREA WIDTH (FT)	550

GROUND ELEVATION (FT)	4,462
UTM X COORDINATE (KM)	404.8
UTM Y COORDINATE (KM)	4,795.90
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	40
STACK EXIT DIAMETER (FT)	22 X 40
STACK EXIT GAS FLOWRATE (ACFM)	26,000
STACK EXIT TEMPERATURE (DEG. F)	120

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS		
					(LBS/HR)	(TONS/YR)	REFERENCE
PM	0.0000076 lb/scf	0	0.052	na**	na		Tier II OP 011-00013
PM-10	0.0000076 lb/scf	0	0.052	0.76	3.3		Tier II OP 011-00013
SO2	0.0000006 lb/scf	0	0.004	0.004	0.02		Tier II OP 011-00013
CO	0.000084 lb/scf	0	0.57	na	na		Tier II OP 011-00013
NOX	0.014 lb/gal	0	1.1	na	na		Tier II OP 011-00013
VOC	0.0005 lb/gal	0	0.039	na	na		Tier II OP 011-00013
LEAD	0.000000005 lb/scf	0	3.41E-06	na	na		Tier II OP 011-00013

* EMISSION FACTORS FROM AP-42.

**Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

Fluidized

DEQ USE ONLY

DEQ PLANT ID CODE
DEQ BUILDING CODE
DEQ SEGMENT CODE

DEQ PROCESS CODE
PRIMARY SCC

DEQ STACK ID CODE
SECONDARY SCC

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Fluidized Bed Dryer
STACK DESCRIPTION	Height 40 feet, Stack diameter 22 X 40 inches, Exit gas volume 8,500 acfm, Exit gas temperature 200 °F.
BUILDING DESCRIPTION	
MANUFACTURER	Maxon 325 Oven Park II
MODEL	
DATE INSTALLED	
DATE LAST MODIFIED	

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

Primary	Secondary	BURNER TYPE	9
MILLION BTU/HR	7	% USED FOR PROCESS	100
1000 LBS STEAM/HR		% USED FOR SPACE HEAT	0
KILOWATTS			
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	2,524	BTU/scf
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	6,816	scf/hr	78	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	59.7	MMscf/yr	Backup fuel	na

*Weight %

**Not Applicable

NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);

07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;

10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL

14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

Dryer A

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER		OPERATING SCHEDULE	
DEC-FEB	25	HOURS/DAY	24
MAR-MAY	25	DAY/WEEK	7
JUN-AUG	25	WEEKS/YEAR	52
SEP-NOV	25	HOURS/YEAR	8,760

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	None	PRIMARY	SECONDARY
TYPE CODE (FROM APP. A)			
MANUFACTURER			
MODEL NUMBER			
PRESSURE DROP (IN. OF WATER)			
WET SCRUBBER FLOW (GPM)			
BAGHOUSE AIR/CLOTH RATIO (FPM)			

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?		GROUND ELEVATION (FT)	
HOOD TYPE (FROM APP. B)		UTM X COORDINATE (KM)	404.8
MINIMUM FLOW (ACFM)		UTM Y COORDINATE (KM)	4,795.90
PERCENT CAPTURE EFFICIENCY		STACK TYPE (SEE NOTE BELOW)	
BUILDING HEIGHT (FT)		STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	26
BUILDING/AREA LENGTH (FT)	29.9	STACK EXIT DIAMETER (FT)	0.192
BUILDING/AREA WIDTH (FT)	898.6	STACK EXIT GAS FLOWRATE (ACFM)	8,500
		STACK EXIT TEMPERATURE (DEG. F)	200

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAP's ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS		
					(LBS/HR)	(TONS/YR)	REFERENCE
PM	0.0000076 lb/scf	0	0.059	na**	na	na	Tier II OP 011-00013
PM-10	0.0000076 lb/scf	0	0.059	0.059	0.26	0.002	Tier II OP 011-00013
SO2	0.00000006 lb/scf	0	0.005	0.005	0.02	0.0002	Tier II OP 011-00013
CO	0.000084 lb/scf	0	0.65	na	na	na	Tier II OP 011-00013
NOX	0.000100 lb/scf	0	0.78	na	na	na	Tier II OP 011-00013
VOC	0.0000055 lb/scf	0	0.043	na	na	na	Tier II OP 011-00013
LEAD	0.000000005 lb/scf	0	3.90E-06	na	na	na	Tier II OP 011-00013

*EMISSION FACTORS FROM AP-42.

**Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION

SECTION 2: FUEL BURNING EQUIPMENT

Dryer A

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Dryer A	
STACK DESCRIPTION	Height 26 feet; Stack diameter 2.3 inches: Exit gas volume 8,500 acfm, Exit gas temperature 200 °F.	
BUILDING DESCRIPTION		
MANUFACTURER	National	DATE INSTALLED
MODEL	Maxon NP-1	DATE LAST MODIFIED

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR	8	BURNER TYPE	9
1000 LBS STEAM/HR		% USED FOR PROCESS	100
KILOWATTS		% USED FOR SPACE HEAT	0
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	91,000	BTU/gal
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	7,790	scf/hr	45	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	56.8	MMscf/yr	Backup fuel	na

*Weight % **Not Applicable
 NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);
 07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;

10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL

14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

Dryer B

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

OPERATING SCHEDULE			
DEC-FEB	25	HOURS/DAY	24
MAR-MAY	25	DAY/WEEK	7
JUN-AUG	25	WEEKS/EAR	52
SEP-NOV	25	HOURS/YEAR	8,760

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	None	PRIMARY	SECONDARY
<u>TYPE CODE (FROM APP. A)</u>			
<u>MANUFACTURER</u>			
<u>MODEL NUMBER</u>			
<u>PRESSURE DROP (IN. OF WATER)</u>			
<u>WET SCRUBBER FLOW (GPM)</u>			
<u>BAGHOUSE AIR/CLOTH RATIO (FPM)</u>			

VENTILATION AND BUILDING/AREA DATA

STACK DATA	
ENCLOSED (Y/N)?	Y
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	
BUILDING/AREA LENGTH (FT)	29.9
BUILDING/AREA WIDTH (FT)	898.6
GROUND ELEVATION (FT)	4,462
UTM X COORDINATE (KM)	404.8
UTM Y COORDINATE (KM)	4,795.90
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	26
STACK EXIT DIAMETER (FT)	0.192
STACK EXIT GAS FLOWRATE (ACFM)	7,500
STACK EXIT TEMPERATURE (DEG. F)	200

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ALLOWABLE EMISSIONS		
				ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	(TONS/YR)	REFERENCE
PM		0.0000076 lb/scf	0	0.024	na**	na Tier II OP 011-00013
PM-10		0.0000076 lb/scf	0	0.024	0.024	0.1 Tier II OP 011-00013
SO2		0.0000006 lb/scf	0	0.002	0.002	0.008 Tier II OP 011-00013
CO		0.00084 lb/scf	0	0.26	na	na Tier II OP 011-00013
NOX		0.000100 lb/scf	0	0.31	na	na Tier II OP 011-00013
VOC		0.0000055 lb/scf	0	0.017	na	na Tier II OP 011-00013
LEAD		0.000000005 lb/scf	0	1.60E-06	na	na Tier II OP 011-00013

*EMISSION FACTORS FROM AP-42.

**Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

Dryer B

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Dryer B	
STACK DESCRIPTION	Height 26 feet; Stack diameter 2.3 inches; Exit gas volume 7,500 acfm, Exit gas temperature 200 °F.	
BUILDING DESCRIPTION		
MANUFACTURER	National	DATE INSTALLED
MODEL	Maxon NP-1	DATE LAST MODIFIED

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR	3.2	BURNER TYPE	9
1000 LBS STEAM/HR		% USED FOR PROCESS	100
KILOWATTS		% USED FOR SPACE HEAT	0
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	91,000	BTU/gal
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	3,116	scf/hr	18	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	22.7	MMscf/yr	Backup fuel	na

*Weight % **Not Applicable
 NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

- 05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);
 07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

- 06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;
 10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL

14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

Dryer C

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	25
MAR-MAY	25
JUN-AUG	25
SEP-NOV	25

OPERATING SCHEDULE

HOURS/DAY	24
DAY/WEEK	7
WEEKS/YEAR	52
HOURS/YEAR	8,760

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE

None

PRIMARY

SECONDARY

TYPE CODE (FROM APP. A)

MANUFACTURER

MODEL NUMBER

PRESSURE DROP (IN. OF WATER)

WET SCRUBBER FLOW (GPM)

BAGHOUSE AIR/CLOTH RATIO (FPM)

VENTILATION AND BUILDING/AREA DATA

STACK DATA

ENCLOSED (Y/N)?	Y
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	
BUILDING/AREA LENGTH (FT)	29.9
BUILDING/AREA WIDTH (FT)	898.6

GROUND ELEVATION (FT)	4,462
UTM X COORDINATE (KM)	404.8
UTM Y COORDINATE (KM)	4,795.90
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	26
STACK EXIT DIAMETER (FT)	0.192
STACK EXIT GAS FLOWRATE (ACFM)	8,500
STACK EXIT TEMPERATURE (DEG. F.)	200

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS		
					(LBS/HR)	(TONS/YR)	REFERENCE
PM		0.0000076 lb/scf	0	0.024	na**	na	Tier II OP 011-00013
PM-10		0.0000076 lb/scf	0	0.024	0.024	0.1	Tier II OP 011-00013
SO ₂		0.00000006 lb/scf	0	0.002	0.002	0.008	Tier II OP 011-00013
CO		0.0000088 lb/scf	0	0.26	na	na	Tier II OP 011-00013
NOX		0.000100 lb/scf	0	0.31	na	na	Tier II OP 011-00013
VOC		0.0000055 lb/scf	0	0.017	na	na	Tier II OP 011-00013
LEAD		0.000000005 lb/scf	0	1.60E-06	na	na	Tier II OP 011-00013

*EMISSION FACTORS FROM AP-42.

**Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

Dryer C

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Dryer C				
STACK DESCRIPTION	Height 26 feet; Stack diameter 2.3 inches; Exit gas volume 7,500 acfm, Exit gas temperature 200 °F.				
BUILDING DESCRIPTION					
MANUFACTURER	National	DATE INSTALLED			
		MODEL	Maxon NP-1	DATE LAST MODIFIED	

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR	3.2	BURNER TYPE	9
1000 LBS STEAM/HR		% USED FOR PROCESS	100
KILOWATTS		% USED FOR SPACE HEAT	0
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	91,000	BTU/gal
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	3,116	scf/hr	18	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	22.7	MMscf/yr	Backup fuel	na

*Weight % **Not Applicable
 NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

- 05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);
- 07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

- 06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;
- 10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL
- 14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

2nd Dryer

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

		OPERATING SCHEDULE	
DEC-FEB	25	HOURS/DAY	24
MAR-MAY	25	DAY/WEEK	7
JUN-AUG	25	WEEKS/YEAR	52
SEP-NOV	25	HOURS/YEAR	8,760

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	None	PRIMARY	SECONDARY
TYPE CODE (FROM APP. A)			
MANUFACTURER			
MODEL NUMBER			
PRESSURE DROP (IN. OF WATER)			
WET SCRUBBER FLOW (GPM)			
BAGHOUSE AIR/CLOTH RATIO (FPM)			

VENTILATION AND BUILDING/AREA DATA

		STACK DATA
ENCLOSED (Y/N)?	Y	GROUND ELEVATION (FT)
HOOD TYPE (FROM APP. B)		4,462
MINIMUM FLOW (ACFM)		UTM X COORDINATE (KM)
PERCENT CAPTURE EFFICIENCY		404.8
BUILDING HEIGHT (FT)		UTM Y COORDINATE (KM)
BUILDING/AREA LENGTH (FT)	22	STACK TYPE (SEE NOTE BELOW)
BUILDING/AREA WIDTH (FT)	698.7	STACK EXIT HEIGHT FROM GROUND LEVEL (FT)
		STACK EXIT DIAMETER (FT)
		STACK EXIT GAS FLOWRATE (ACFM)
		STACK EXIT TEMPERATURE (DEG. F)

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR ^a (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)			ALLOWABLE EMISSIONS (TONS/YR)	REFERENCE
				(LBS/HR)	(TONS/YR)			
PM		0.0000076 lb/scf	0	0.0041	na ^b	na	Tier II OP 011-00013	
PM-10		0.0000076 lb/scf	0	0.0041	0.0041	0.02	Tier II OP 011-00013	
SO2		0.0000006 lb/scf	0	0.003	0.003	0.001	Tier II OP 011-00013	
CO		0.000084 lb/scf	0	0.045	na	na	Tier II OP 011-00013	
NOX		0.000100 lb/scf	0	0.054	na	na	Tier II OP 011-00013	
VOC		0.0000055 lb/scf	0	0.003	na	na	Tier II OP 011-00013	
LEAD		0.000000005 lb/scf	0	2.70E-07	na	na	Tier II OP 011-00013	

^a EMISSION FACTORS FROM AP-42.^b Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

2 nd Dryer

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Secondary Dryer	
STACK DESCRIPTION	Not Applicable-Stack does not discharge to outside of building.	
BUILDING DESCRIPTION		
MANUFACTURER	Maxon	DATE INSTALLED
MODEL	405 Ovencak	DATE LAST MODIFIED

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR	0.55	BURNER TYPE	9
1000 LBS STEAM/HR		% USED FOR PROCESS	100
KILOWATTS		% USED FOR SPACE HEAT	0
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	91,000	BTU/gal
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	536	scf/hr	3.1	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	4.95	MMscf/yr	Backup fuel	na

*Weight %

**Not Applicable

NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);

07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;

10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL

14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

South Heater

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB	
MAR-MAY	
JUN-AUG	
SEP-NOV	

OPERATING SCHEDULE

HOURS/DAY	24
DAY/WEEK	7
WEEKS/YEAR	36
HOURS/YEAR	6,048

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	None	PRIMARY	SECONDARY
TYPE CODE (FROM APP. A)			
MANUFACTURER			
MODEL NUMBER			
PRESSURE DROP (IN. OF WATER)			
WET SCRUBBER FLOW (GPM)			
BAGHOUSE AIR/CLOTH RATIO (FPM)			

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?		GROUND ELEVATION (FT)	4,462
HOOD TYPE (FROM APP. B)		UTM X COORDINATE (KM)	404.8
MINIMUM FLOW (ACFM)		UTM Y COORDINATE (KM)	4,795.90
PERCENT CAPTURE EFFICIENCY		STACK TYPE (SEE NOTE BELOW)	
BUILDING HEIGHT (FT)		STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
BUILDING/AREA LENGTH (FT)		STACK EXIT DIAMETER (FT)	
BUILDING/AREA WIDTH (FT)		STACK EXIT GAS FLOWRATE (ACFM)	70,000
		STACK EXIT TEMPERATURE (DEG. F)	100

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS		
					(LBS/HR)	(TONS/YR)	REFERENCE
PM	0.0000076 lb/scf	0	0.061	na**	na		Tier II OP 011-00013
PM-10	0.0000076 lb/scf	0	0.061	0.061	0.18		Tier II OP 011-00013
SO2	0.00000006 lb/scf	0	0.005	0.005	0.015		Tier II OP 011-00013
CO	0.000084 lb/scf	0	0.67	na	na		Tier II OP 011-00013
NOX	0.000100 lb/scf	0	0.8	na	na		Tier II OP 011-00013
VOC	0.0000055 lb/scf	0	0.044	na	na		Tier II OP 011-00013
LEAD	0.000000005 lb/scf	0	4.00E-06	na	na		Tier II OP 011-00013

* EMISSION FACTORS FROM AP-42.

**Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

South Heater

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Industrial Space Heat South System	
STACK DESCRIPTION	Exit gas volume 70,000 acfm, Exit gas temperature 100 °F.	
BUILDING DESCRIPTION		
MANUFACTURER	Maxon	DATE INSTALLED
MODEL	NP-1	DATE LAST MODIFIED

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR	8.25	BURNER TYPE	9
1000 LBS STEAM/HR		% USED FOR PROCESS	0
KILOWATTS		% USED FOR SPACE HEAT	100
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	91,000	BTU/gal
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	8,033	scf/hr	42	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	51.0	MMscf/yr	Backup fuel	na

*Weight % **Not Applicable
 NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

- 05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);
 07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

- 06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;
 10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL
 14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

North Heater

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER

DEC-FEB
MAR-MAY
JUN-AUG
SEP-NOV

OPERATING SCHEDULE

HOURS/DAY	24
DAY/WEEK	7
WEEKS/YEAR	36
HOURS/YEAR	6,048

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	None	PRIMARY	SECONDARY
TYPE CODE (FROM APP. A)			
MANUFACTURER			
MODEL NUMBER			
PRESSURE DROP (IN. OF WATER)			
WET SCRUBBER FLOW (GPM)			
BAGHOUSE AIR/CLOTH RATIO (FPM)			

VENTILATION AND BUILDING/AREA DATA

STACK DATA

ENCLOSED (Y/N)?		GROUND ELEVATION (FT)	4,462
HOOD TYPE (FROM APP. B)		UTM X COORDINATE (KM)	404.8
MINIMUM FLOW (ACFM)		UTM Y COORDINATE (KM)	4,795.90
PERCENT CAPTURE EFFICIENCY		STACK TYPE (SEE NOTE BELOW)	
BUILDING HEIGHT (FT)		STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
BUILDING/AREA LENGTH (FT)		STACK EXIT DIAMETER (FT)	
BUILDING/AREA WIDTH (FT)		STACK EXIT GAS FLOWRATE (ACFM)	130,000
		STACK EXIT TEMPERATURE (DEG. F)	100

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS		
					(TONS/YR)	REFERENCE	
PM		0.0000076 lb/scf	0	0.061	na**	na	Tier II OP 011-00013
PM-10		0.0000076 lb/scf	0	0.061	0.061	0.18	Tier II OP 011-00013
SO2		0.00000006 lb/scf	0	0.005	0.005	0.015	Tier II OP 011-00013
CO		0.000084 lb/scf	0	0.67	na	na	Tier II OP 011-00013
NOX		0.000100 lb/scf	0	0.8	na	na	Tier II OP 011-00013
VOC		0.0000055 lb/scf	0	0.044	na	na	Tier II OP 011-00013
LEAD		0.000000005 lb/scf	0	4.00E-06	na	na	Tier II OP 011-00013

* EMISSION FACTORS FROM AP-42.

**Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

North Heater

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION		Industrial Space Heat North System
STACK DESCRIPTION	Exit gas volume 70,000 acfm, Exit gas temperature 100 °F.	
BUILDING DESCRIPTION		
MANUFACTURER	Maxon	DATE INSTALLED
MODEL	NP-1	DATE LAST MODIFIED

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR	8.25	BURNER TYPE	9
1000 LBS STEAM/HR		% USED FOR PROCESS	0
KILOWATTS		% USED FOR SPACE HEAT	100
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	91,000	BTU/gal
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	8,033	scf/hr	42	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	51.0	MMscf/yr	Backup fuel	na

*Weight % **Not Applicable
 NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

- 05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);
- 07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;
- 11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

- 06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;
- 10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL
- 14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

East Heater

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER	
DEC-FEB	
MAR-MAY	
JUN-AUG	
SEP-NOV	

OPERATING SCHEDULE	
HOURS/DAY	24
DAY/WEEK	7
WEEKS/YEAR	36
HOURS/YEAR	6,048

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	None	PRIMARY	SECONDARY
TYPE CODE (FROM APP. A)			
MANUFACTURER			
MODEL NUMBER			
PRESSURE DROP (IN. OF WATER)			
WET SCRUBBER FLOW (GPM)			
BAGHOUSE AIR/CLOTH RATIO (FPM)			

VENTILATION AND BUILDING/AREA DATA

ENCLOSED (Y/N)?	
HOOD TYPE (FROM APP. B)	
MINIMUM FLOW (ACFM)	
PERCENT CAPTURE EFFICIENCY	
BUILDING HEIGHT (FT)	
BUILDING/AREA LENGTH (FT)	
BUILDING/AREA WIDTH (FT)	

STACK DATA

GROUND ELEVATION (FT)	4,462
UTM X COORDINATE (KM)	404.8
UTM Y COORDINATE (KM)	4,795.90
STACK TYPE (SEE NOTE BELOW)	
STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
STACK EXIT DIAMETER (FT)	
STACK EXIT GAS FLOWRATE (ACFM)	130,000
STACK EXIT TEMPERATURE (DEG. F.)	100

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	ALLOWABLE EMISSIONS		
					(LBS/HR)	(TONS/YR)	REFERENCE
PM	0.0000076 lb/scf	0	0.11	na**	na	na	Tier II OP 011-00013
PM-10	0.0000076 lb/scf	0	0.11	0.11	0.34	na	Tier II OP 011-00013
SO2	0.0000006 lb/scf	0	0.009	0.009	0.027	na	Tier II OP 011-00013
CO	0.000084 lb/scf	0	1.26	na	na	na	Tier II OP 011-00013
NOX	0.000100 lb/scf	0	1.5	na	na	na	Tier II OP 011-00013
VOC	0.0000055 lb/scf	0	0.082	na	na	na	Tier II OP 011-00013
LEAD	0.000000005 lb/scf	0	7.50E-06	na	na	na	Tier II OP 011-00013

*EMISSION FACTORS FROM AP-42.

**Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD, 02) VERTICAL (UNCOVERED), 03) VERTICAL (COVERED), 04) HORIZONTAL, 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

East Heater

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Industrial Space Heat East System		
STACK DESCRIPTION	Exit gas volume 130,000 acfm, Exit gas temperature 100 °F.		
BUILDING DESCRIPTION			
MANUFACTURER	Maxon	DATE INSTALLED	
		MODEL	NP-1
			DATE LAST MODIFIED

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR	8.25	BURNER TYPE	9
1000 LBS STEAM/HR		% USED FOR PROCESS	0
KILOWATTS		% USED FOR SPACE HEAT	100
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	91,000	BTU/gal
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	14,995	scf/hr	79	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	95.6	MMscf/yr	Backup fuel	na

*Weight % **Not Applicable

NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);

07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;

10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL

14) PROPANE; 15) OTHER (SPECIFY)

SECTION 2, PART B

Misc. Heater

OPERATING DATA

PERCENT FUEL CONSUMPTION PER QUARTER		OPERATING SCHEDULE	
DEC-FEB		HOURS/DAY	24
MAR-MAY		DAY/WEEK	7
JUN-AUG		WEEKS/YEAR	36
SEP-NOV		HOURS/YEAR	6,048

POLLUTION CONTROL EQUIPMENT

PARAMETER TYPE	None	PRIMARY	SECONDARY
TYPE CODE (FROM APP. A)			
MANUFACTURER			
MODEL NUMBER			
PRESSURE DROP (IN. OF WATER)			
WET SCRUBBER FLOW (GPM)			
BAGHOUSE AIR/CLOTH RATIO (FPM)			

VENTILATION AND BUILDING/AREA DATA

STACK DATA

ENCLOSED (Y/N)?		GROUND ELEVATION (FT)	4,462
HOOD TYPE (FROM APP. B)		UTM X COORDINATE (KM)	404.8
MINIMUM FLOW (ACFM)		UTM Y COORDINATE (KM)	4,795.90
PERCENT CAPTURE EFFICIENCY		STACK TYPE (SEE NOTE BELOW)	
BUILDING HEIGHT (FT)		STACK EXIT HEIGHT FROM GROUND LEVEL (FT)	
BUILDING/AREA LENGTH (FT)		STACK EXIT DIAMETER (FT)	
BUILDING/AREA WIDTH (FT)		STACK EXIT GAS FLOWRATE (ACFM)	
		STACK EXIT TEMPERATURE (DEG. F)	

AIR POLLUTANT EMISSIONS

POLLUTANT	CAS NUMBER (FOR HAPs ONLY)	EMISSION FACTOR* (SEE BELOW)	PERCENT CONTROL EFFICIENCY	ALLOWABLE EMISSIONS		
				ESTIMATED OR MEASURED EMISSIONS (LBS/HR)	(TONS/YR)	REFERENCE
PM	0.0000076 lb/scf	0	0.0147	na**	na	Tier II OP 011-00013
PM-10	0.0000076 lb/scf	0	0.015	0.015	0.045	Tier II OP 011-00013
SO2	0.00000006 lb/scf	0	0.001	0.001	0.0035	Tier II OP 011-00013
CO	0.000084 lb/scf	0	0.16	na	na	Tier II OP 011-00013
NOX	0.000100 lb/scf	0	0.19	na	na	Tier II OP 011-00013
VOC	0.0000055 lb/scf	0	0.011	na	na	Tier II OP 011-00013
LEAD	0.000000005 lb/scf	0	9.70E-07	na	na	Tier II OP 011-00013

* EMISSION FACTORS FROM AP-42.

**Not Applicable

NOTE: STACK TYPE - 01) DOWNWARD; 02) VERTICAL (UNCOVERED); 03) VERTICAL (COVERED); 04) HORIZONTAL; 05) FUGITIVE

EMISSION FACTOR IN LBS/UNITS. PLEASE USE SAME HOURLY UNITS GIVEN IN FUEL DATA SECTION.

SECTION 2: FUEL BURNING EQUIPMENT

Misc. Heater

DEQ USE ONLY

DEQ PLANT ID CODE	DEQ PROCESS CODE	DEQ STACK ID CODE
DEQ BUILDING CODE	PRIMARY SCC	SECONDARY SCC
DEQ SEGMENT CODE		

PART A: GENERAL INFORMATION

PROCESS CODE OR DESCRIPTION	Miscellaneous Space Heaters	
STACK DESCRIPTION	Stack does not discharge to outside of building	
BUILDING DESCRIPTION		
MANUFACTURER	Various	DATE INSTALLED
		MODEL
		DATE LAST MODIFIED

RATED CAPACITY (CHOOSE APPROPRIATE UNITS)

MILLION BTU/HR	2	BURNER TYPE	9
1000 LBS STEAM/HR		% USED FOR PROCESS	0
KILOWATTS		% USED FOR SPACE HEAT	100
HORSEPOWER			

FUEL DATA

PARAMETER	PRIMARY FUEL	UNITS*	SECONDARY FUEL	UNITS*
FUEL CODE (SEE NOTE)	1	na**	14	na
PERCENT SULFUR	0.003	%	0.000011	%
PERCENT ASH	0	%	0	%
PERCENT NITROGEN	1.8	%	0	%
PERCENT CARBON	73.6	%	81.8	%
PERCENT HYDROGEN	24.3	%	18.2	%
PERCENT MOISTURE	0	%	0	%
HEAT CONTENT (BTU/UNIT)	1,027	BTU/scf	91,000	BTU/gal
MAXIMUM HOURLY COMBUSTION RATE (UNITS/HR)	1,947	scf/hr	11	gal/hr
NORMAL ANNUAL COMBUSTION RATE (UNITS/YR)	11.8	MMscf/yr	Backup fuel	na

*Weight %

**Not Applicable

NOTE: BURNER TYPE - 01) SPREAD STOKER; 02) CHAIN OR TRAVELING GRATE; 03) HAND FIRED; 04) CYCLONE FURNACE;

05) WET BOTTOM (PULVERIZED COAL); 06) DRY BOTTOM (PULVERIZED COAL);

07) UNDERFEED STOKERS; 08) TANGENTIALLY FIRED; 09) HORIZONTALLY FIRED; 10) AXIALLY FIRED;

11) OTHER (SPECIFY)

FUEL CODES - 01) NATURAL GAS; 02) #1 OR #2 FUEL OIL; 03) #4 FUEL OIL; 04) #5 OR #6 FUEL OIL; 05) USED OIL

06) WOOD CHIPS; 07) WOOD BARK; 08) WOOD SHAVINGS; 09) SANDER DUST;

10) SUBBITUMINOUS COAL; 11) BITUMINOUS COAL; 12) ANTHRACITE COAL; 13) LIGNITE COAL

14) PROPANE; 15) OTHER (SPECIFY)